REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-34 were originally presented. Claims 21-34 have been withdrawn as being drawn to a non-elected invention. Claim 1 has been amended. Claims 1-20 are presently pending, with claim 1 being in independent form.

Applicants would like to thank the Examiner and his supervisor for their time and attention courteously extended to Applicant's representative, Kameron Kelly, during the in-person interview conducted on January 29, 2007. During the interview, the Examiner and Applicant's representative discussed how the teachings of the cited prior art references are fundamentally different than Applicant's invention. In particular, the cited prior art references teach processes carried out in dilute phase transport riser reactors, whereas Applicant's process is carried out in a dense phase fixed fluidized bed reactor.

In the Office Action of November 13, 2006, the Examiner rejected claims 1-12 and 19 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,146,519 (Koves) in view of U.S. Patent No. 5,914,292 (Khare).

Applicants have amended claim 1 to recite that the claimed desulfurization process is carried out in a "fixed fluidized bed reactor." Support for this amendment can be found, for example, in original claim 6. One skilled in the art would readily recognize a "fixed fluidized bed reactor" as being a reactor within which a gas flows upwardly through a dense phase bed of solid particles at a velocity that is low enough to allow for gravitational separation of the gas and solid phases within the reactor, so that the particles are substantially maintained in the reactor and do not exit the reactor with the gas.

As discussed in the interview, neither Koves nor Khare disclose a fixed fluidized bed reactor. Rather, Koves and Khare both disclose the use of transport riser reactors to carry out their respective processes. In transport riser reactors, the solid particles (1) become entrained in the upwardly moving gas, (2) flow through the riser with the moving gas, and (3) exit the riser with the moving gas. Thus, the reactors of Koves and Khare are clearly not "fixed fluidized bed" reactors.

In addition, Applicants have amended claim 1 to recite that the fluidized bed formed in the reactor has "a particle density of at least about 20 lb/ft^3." Support for this amendment can be

found, for example, in the specification of the present application at page 25, lines 12 and 13. Koves and Khare both teach that their transport reactors operate in a dilute phase regime. Several defining characteristics of a dilute phase regime include low particle densities, high gas velocities, and short residence times. In particular, Koves discloses that the "density in the dilute phase regime will be less than about 20 lb/ft^3" (col. 6, ll. 4,5), while Khare discloses that the "average riser bed density was 6 lb/ft^3." (col. 15, l. 47). Thus, neither Koves nor Khare teach or suggest a fluidized bed having "a particle density of at least about 20 lb/ft^3," as now recited in claim 1.

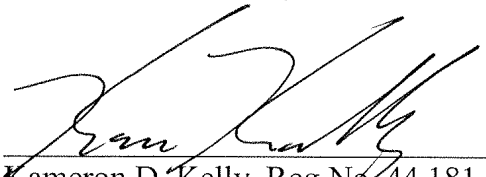
Finally, at the time of the present invention, one skilled in the art would not have been motivated to employ the baffles used in the dilute phase transport reactor of Koves in Applicants fixed fluidized bed reactor because, for example, the flow behavior of transport reactors and fluidized bed reactors is so dissimilar. Further, Koves teaches that the need for baffles arises from the high gas velocities and low particle density associated with dilute phase flow regimes. In particular, Koves states, "It is the higher velocities and lower catalyst density that leads to the formation of catalyst streamers or ribbons" (col. 6, ll. 8-10) and the baffles are provided "to break up any ribbons of particulate material." (col. 6, l. 13). Thus, Koves teaches that baffles are necessary to counteract negative characteristics (e.g., catalyst ribbons) associated with dilute phase flow. As a result, one would not be motivated to employ the baffles of Kove in fluidized bed reactors which do not employ a dilute phase flow regime and would not necessarily have the same problems associated with dilute phase transport reactors.

Accordingly, Applicants submit that claim 1 is patentable over the prior art references of record. Claims 2-20 recite additional patentable features, but should also be allowable because they depend from allowable claim 1.

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case. Should the Examiner have any questions, please contact the undersigned at (800) 445-3460.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 19-0522.

Respectfully submitted,
HOVEY WILLIAMS LLP

By: 

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